AMENDMENTS TO THE SPECIFICATION

Please amend paragraph [0029] beginning on page 7, as follows:

[0029]   The remainder of the processing circuitry 30 provides a circuit for acquiring the measurement of ~~this~~ the magnetic flux density for each array element 14 and for determining the peak from at least some of those measurements. As the voltage from the voltage supply 32 is applied across each of the sensing elements 14, Hall #0, Hall #1, . . . Hall #i, . . . Hall #n-1, leads from each of the sensing elements 14 delivers the Hall voltage and provides each Hall voltage signal to respective channels, Channel 0, Channel 1, . . . Channel i, . . . Channel n-1, of a multiplexer 34. The multiplexer 34 provides an output voltage associated with each channel number to a microprocessor 36 for additional processing and/or display. The additional processing includes, for example, the determination of the maximum (or minimum) of the curve fitted to the measured values as described in more detail herein. The microprocessor 36 can be, for example, part of a standard engine controller. In any case, memory may be required for storing the output data.

Please amend paragraph [0033] beginning on page 8, as follows:

[0033]   It is desirable that the target be comparable in width to the spacing d between adjacent sensing elements 14, because, depending upon the spacing d of adjacent sensing elements 14, this yields a relatively accurate sensor 10. Even more desirable is a target narrower than the spacing d. However, as the target becomes narrower, it is more likely to be damaged, and too narrow a target will saturate. These factors must be balanced with the goal being merely to produce a peak or valley in the magnetic flux density waveform that is roughly symmetrical about the location of the maximum or

minimum value. It is also worth noting that the strip target 20, like other targets resulting in a peak, is typically narrower than, and extends further in a direction normal to the length of the magnet 18 (the "depth"), than a target needed to achieve a valley having the same magnetic profile as the peak. For example, to produce a valley having the same magnetic profile as the curve of ~~Fig. 1~~ Fig. 2 using a slot target 22 in a magnetic block 26, the slot target 22 would have a depth of 1.0 mm and a width of about 0.5 mm. In this case, the graph would be a valley with a minimum voltage at the position of the slot target 22.